AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated hereafter.

The following is a copy of Applicant's claims that identifies language being added with underlining ("___") and language being deleted with strikethrough ("~~___~~") or placed in double brackets ("[[ ]]"), as applicable:

1. (Currently amended) A method for scheduling packet in a wireless telecommunication system, comprising

dividing user packet queues to be transmitted into user packet queues with ~~lost~~ packet loss and user packet queues without ~~lost~~ packet loss;

for the user packet queues with ~~lost~~ packet loss, if ~~the~~ a real time ~~lost~~ loss ratio of packet for ~~the~~ a user ~~excesses~~ exceeds a predetermined ~~lost~~ loss ratio threshold of packet, terminating the connection to the user;

if the real time ~~lost~~ loss ratio of packet for the user does not ~~excess~~ exceed the predetermined ~~lost~~ loss ratio threshold of packet, scheduling the user packet queues according to ~~the~~ a volume of the ~~lost~~ loss ratio of packet, giving priority to scheduling the user packet queues with high loss ratio of packet; and

for the user packet queues without ~~lost~~ packet loss, scheduling according to packet lengths, channel quality states, time delays and time delay jitters.

2. (Currently amended) The method of scheduling packet in a wireless telecommunication system of claim 1, wherein said step of dividing user packet queues to be transmitted into the user packet queues with ~~lost~~ packet loss and the user packet queues without ~~lost~~ packet loss further includes the steps of:

obtaining related information, required for scheduling, including the channel quality states, the lengths of all packets to be transmitted, maximum delay thresholds for all packets, delay waiting time for all packets, ~~the~~ real time ~~lost~~ loss ratios of packets for all users, real time ~~lost~~ loss ratio thresholds of packets for all users, time delay jitters for all packets and maximum time delay jitter thresholds for all packets;

judging whether the real time ~~lost~~ loss ratio of packet for each of users is more than 0, if yes, categorizing the user packet into the user packet queues with ~~lost~~ packet loss; if not, categorizing the user packet into the user packet queues without ~~lost~~ packet loss.

3. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 1, wherein said scheduling according to the packet length, the channel quality state, the time delay and the time delay jitter is scheduling with priority according to a ~~principal~~ value of ~~least~~ $\left(W_{\max,m}-W_{i,j}\right)\left(Jitter_{\max,n}-Jitter_{i,j}\right)l_{i,j}C_{i,j}$, giving priority to scheduling a user packet queue having a least value of $\left(W_{\max,m}-W_{i,j}\right)\left(Jitter_{\max,n}-Jitter_{i,j}\right)l_{i,j}C_{i,j}$, wherein $l_{i,j}$ represents the packet length, $C_{i,j}$ represents the channel quality state, $W_{i,j}$ represents a ~~the~~ delay waiting time of packet, $Jitter_{i,j}$ represents the time delay jitter of packet, $Jitter_{\max,n}$ represents a ~~the~~ maximum time delay jitter threshold of packet, $W_{\max,m}$ represents a ~~the~~ maximum delay threshold of service, the above i represents one user index, j represents a scheduling period, a value of j is an integer not less than one, n corresponds to ~~the~~ a type of services with limitation of maximum time delay jitter, m corresponds to ~~the~~ a type of services with limitation of maximum delay.

4. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 1, wherein said scheduling according to the packet length, the channel quality state, the time delay and the time delay jitter is scheduled according to a ~~principal~~ value of ~~least~~ $\left(Jitter_{\max,n} - Jitter_{i,j}\right) l_{i,j} C_{i,j} / W_{i,j}$, giving priority to scheduling a user packet queue having a least value of $\frac{\left(W_{\max,m} - W_{i,j}\right)\left(Jitter_{\max,n} - Jitter_{i,j}\right) l_{i,j} C_{i,j}}{}$, wherein $l_{i,j}$ represents the packet length, $C_{i,j}$ represents the channel quality state, $W_{i,j}$ represents a ~~the~~ delay waiting time of packet, $Jitter_{i,j}$ represents the time delay jitter of packet, $Jitter_{\max,n}$ represents a ~~the~~ maximum packet time delay jitter threshold of packet, the above i represents one user index, j represents a scheduling period, a value of j is an integer not less than one, n corresponds to ~~the~~ a type of services with limitation of maximum time delay jitter threshold.

5. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 1, wherein said channel quality state is a reciprocal of a maximum possible transmission rate in a wireless channel.

6. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 1, wherein said channel quality state is a reciprocal of a measured ratio of signal to noise in a channel.

7. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 1, wherein said channel quality state is path loss of transmission.

8. - 9. (Canceled)

10. (Currently amended) A method of scheduling packet in wireless telecommunication system, comprising

reading ~~packet~~ data of packets to be transmitted into buffers of a queue, and dividing the packets ~~data~~ into ~~a~~ packets with time delay jitter and time delay limitation, ~~a~~ packets only with time delay limitation, and ~~a~~ packets without time delay limitation, wherein the packets with time delay jitter and time delay limitation, the packets only with time delay limitation, and the packets without time delay limitation having priority levels from high to low;

for the packets with time delay jitter and time delay limitation, scheduling the ~~packet~~ data of packets according to the priority levels by using a method for scheduling packet ~~of claim 1~~ comprising

dividing user packet queues to be transmitted into user packet queues with packet loss and user packet queues without packet loss;

for the user packet queues with packet loss, if a real time loss ratio of packet for a user exceeds a predetermined loss ratio threshold of packet, terminating the connection to the user;

if the real time loss ratio of packet for the user does not exceed the predetermined loss ratio threshold of packet, scheduling the user packet queues according to a volume of the loss ratio of packet, giving priority to scheduling the user packet queues with high loss ratio of packet; and

for the user packet queues without packet loss, scheduling according to packet lengths, channel quality states, time delays and time delay jitters;

then, judging whether a code channel assigned in a scheduling period of a transmission time interval or an overall power used ~~excesses~~ exceeds a predetermined upper limit,

if yes, completing the scheduling period of one transmission time interval for the packet,

if not, ~~re~~-reading new data to be transmitted and continuing scheduling ~~the~~ a packet

service in the scheduling period of the transmission time interval; and

~~re-~~reading new data to be transmitted to start scheduling ~~the~~ a packet service in a scheduling period of the following transmission time interval.

11. (Currently Amended) The method of scheduling packet in wireless telecommunication system of claim 10, wherein said step of dividing the packets ~~data~~ further includes steps of:

judging whether there is a packet service sensitive to time delay in the data of packets ~~data~~ in the queue, if no, it indicating that the packet service in the queue is a packet ~~service~~ without time delay limitation, the packet without time delay limitation having a lowest priority level;

if yes, further judging whether there is a packet service sensitive to time delay jitter in the packet service sensitive to time delay, if yes, the packet service sensitive to time delay jitter being a packet with time delay jitter and time delay limitation, the packet with time delay jitter and time delay limitation having a highest priority level;

if no, the packet service sensitive to time delay jitter being ~~the~~ a packet only with time delay limitation, the packet only with time delay limitation having a moderate priority level.

12. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 10, wherein the packet with only time delay limitation is scheduled by a method ~~of~~ utilizing Earliest Deadline First (EDF) algorithm, that is, a method of selecting a user packet most approximating to the maximum time delay threshold and providing priority services.

13. (Previously presented) The method of scheduling packet in wireless telecommunication system of claim 10, wherein the packet without time delay limitation is scheduled by a wireless weight fair queue scheduling method.

14. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 2, wherein said channel quality state is a reciprocal of a maximum possible transmission rate in a wireless channel.

15. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 3, wherein said channel quality state is a reciprocal of a maximum possible transmission rate in a wireless channel.

16. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 4, wherein said channel quality state is a reciprocal of a maximum possible transmission rate in a wireless channel.

17. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 2, wherein said channel quality state is a reciprocal of a measured ratio of signal to noise in a channel.

18. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 3, wherein said channel quality state is a reciprocal of a measured ratio of signal to noise in a channel.

19. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 4, wherein said channel quality state is a reciprocal of a measured ratio of signal to noise in a channel.

20. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 2, wherein said channel quality state is path loss of transmission.

21. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 3, wherein said channel quality state is path loss of transmission.

22. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 4, wherein said channel quality state is path loss of transmission.

23. (Canceled)

24. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 3, wherein said time delay jitter of packet $Jitter_{i,j}$ is the following:

$Jitter_{i,j} = 0$, when $j = 1$,

$Jitter_{i,j} = \alpha\left|\left(W_{i,j} + l_{i,j}C_{i,j}\right) - \left(W_{i,j-1} + l_{i,j-1}C_{i,j-1}\right)\right| + (1-\alpha)Jitter_{i,j-1}$, when $j \in [2,+\infty)$,

in which, $l_{i,j}$ represents the packet length, $C_{i,j}$ represents the channel quality state, $W_{i,j}$ represents the delay waiting time of packet, the above i represents the user index, j represents a scheduling period, a value of j is an integer not less than one, α is in a range of 0 to 1, that is, $\alpha \in (0,1)$.

25. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 4, wherein said time delay jitter of packet $Jitter_{i,j}$ is the following:

$Jitter_{i,j} = 0$, when $j = 1$,

$Jitter_{i,j} = \alpha\left|\left(W_{i,j} + l_{i,j}C_{i,j}\right) - \left(W_{i,j-1} + l_{i,j-1}C_{i,j-1}\right)\right| + (1-\alpha)Jitter_{i,j-1}$, when $j \in [2,+\infty)$,

in which, $l_{i,j}$ represents the packet length, $C_{i,j}$ represents the channel quality state, $W_{i,j}$ represents the delay waiting time of packet, the above i represents the user index, j represents a scheduling period, a value of j is an integer not less than one, α is in a range of 0 to 1, that is, $\alpha \in (0,1)$.

26. (Canceled)

27. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 3, wherein said time delay jitter of packet $Jitter_{i,j}$ is the following:

$Jitter_{i,j} = 0$, when $j = 1$,

$Jitter_{i,j} = \alpha\left|\left(W_{i,j}\right) - \left(W_{i,j-1}\right)\right| + (1-\alpha)Jitter_{i,j-1}$, when $j \in [2,+\infty)$,

wherein, $l_{i,j}$ represents the packet length, $C_{i,j}$ represents the channel quality state, $W_{i,j}$ represents the delay waiting time of packet, the above i represents the user index, j represents a scheduling period, a value of j is an integer not less than one, α is in a range of 0 to 1, that is, $\alpha \in (0,1)$.

28. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 4, wherein said time delay jitter of packet $Jitter_{i,j}$ is the following:

$Jitter_{i,j} = 0$, when $j = 1$,

$Jitter_{i,j} = \alpha\left|\left(W_{i,j}\right) - \left(W_{i,j-1}\right)\right| + (1-\alpha)\,Jitter_{i,j-1}$, when $j \in [2, +\infty)$,

wherein, $l_{i,j}$ represents the packet length, $C_{i,j}$ represents the channel quality state, $W_{i,j}$ represents the delay waiting time of packet, the above i represents the user index, j represents a scheduling period, a value of j is an integer not less than one, α is in a range of 0 to 1, that is, $\alpha \in (0,1)$.

29. (Currently amended) The method of scheduling packet in wireless telecommunication system of claim 11, wherein the packet with only time delay limitation is scheduled by a method ~~of~~ utilizing Earliest Deadline First (EDF) algorithm, that is, a method of selecting a user packet most approximating to the maximum time delay threshold and providing priority services.

30. (Previously presented) The method of scheduling packet in wireless telecommunication system of claim 11, wherein the packet without time delay limitation is scheduled by a wireless weight fair queue scheduling method.